IOWA DEPARTMENT OF NATURAL RESOURCES
WATER SUPPLY SECTION
CONSTRUCTION PERMIT APPLICATION

SCHEDULE-16c, Filtration and Mechanical

Date Prepared	Project Identity
Date Revised	

1. Design Basis:

	Average	Maximum
Flow to Unit (gpd)		
Suspended Solids to Unit (lbs/day)		

2. Wastewater Sand Filters or Sludge Drying Beds: ☐ N/A
   a. Number of filters: _____ ; total filter surface area: _____ ft^2
   b. Number of sludge drying beds: _____ ; total bed area: _____ ft^2
   c. Maximum water depth over media: _____ ft.
   d. Method of freeze protection: _____ spec. page no. _____
   e. Type of unit underdrain: _____ spec. page no. _____
   f. Type of effluent flow measurement: _____ spec. page no. _____
   g. Method of effluent sampling: _____ spec. page no. _____

3. Wastewater Sand Filters: N/A ☐

Media Data	Layer 1	Layer 2	Layer 3	Layer 4
Type of Media				
Depth (inches)				
Effective size (mm)				
Uniformity Coefficient				

4. Mechanical dewatering: N/A ☐
   a. Type of dewatering unit: _____

   b. Has a pilot study on the water plant waste been conducted? Yes ☐ No ☐ If yes, attach a copy of the pilot plant study findings; If no, attach justification for not conducting a pilot plant study, including test results from similar types of sludge:

Design Data	Unit # 1	Unit # 2	Unit # 3
Capacity (lbs. solids/hour)			
Capacity (gallons/hr)			

   c. Will polymer or precoat be used? Yes ☐ No ☐
   If yes, identify: _____

   d. Where is the mechanical dewatering unit liquid effluent discharged to?

   _____

   If returned to the raw water entering the water treatment plant, has provision been made to bypass this liquid effluent to the sanitary sewer? Yes ☐ No ☐

   e. Is the sludge discharged to a sludge storage facility prior to being dewatered? Yes ☐ No ☐ If yes, how large a facility is provided? _____ gallons; If no, what provisions have been made to dispose of sludge daily?

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